IN THE CLAIMS

1.   (Previously Presented) A method of allocating memory for a client network address translation (NAT) pool, said method comprising the steps of:

creating a control block that represents a client NAT address range, said control block identifying client NAT addresses for a computer system;

creating a memory pool having a main pool header, said main pool header having an address referenced in said control block;

allocating at least one subpool header having a subpool memory block containing one or more fixed-length connection blocks that are allocated within said subpool memory block, said connection blocks containing particular ones of said client NAT addresses, said subpool header being referenced by said main pool header;

wherein each connection block may be either free or allocated, said particular ones of said client NAT addresses remain allocated within said subpool memory until all connection blocks in said subpool memory are free.

2.   (Original) A method as in Claim 1, wherein said control block has a pool name property.

3.   (Original) A method as in Claim 1, wherein said control block has a first IP address property.

4.   (Original) A method as in Claim 1, wherein said control block has a last IP address property.

5.   (Original) A method as in Claim 1, wherein said control block has a net mask property.

6.   (Original) A method as in Claim 1, wherein said control block has a memory pool address property.

7.   (Original) A method as in Claim 1, wherein said control block has an initial number of connection blocks property.

8.   (Original) A method as in Claim 1, wherein said control block has a maximum number of connection blocks property.

9.   (Original) A method as in Claim 1, wherein said control block has an interval list address.

10.   (Previously Presented) A method of allocating memory for a client network address translation (NAT) pool, said method comprising the steps of:

configuring a client network address translation (NAT) address range having a plurality of client NAT addresses;

allocating said client NAT address range;

allocating memory for a memory pool;

creating said memory pool;

creating, a subpool within said memory pool, said subpool containing a subpool memory block containing one or more connection blocks that are allocated within said subpool, said subpool constructed and arranged to contain connection blocks with particular ones of said plurality of client NAT addresses within said client NAT address range;

wherein each connection block is either free or allocated, said particular ones of said plurality of client NAT addresses remain allocated within said subpool until all of said connection blocks are free.

11. (Original) The method according to Claim 10, wherein said step of creating a subpool further comprises the steps of:

initializing said subpool;

allocating an interval within said subpool with at least one block; and

initializing said at least one block with client NAT addresses.

12. (Original) The method according to Claim 10, wherein said method further comprising the step of:

allocating a new connection block in said memory pool;

allocating said new connection block to subpool.

13. (Previously Presented) A method of allocating memory in software for a client network address translation (NAT) pool, said method comprising the steps of:

creating an internal control block that represents said client NAT address range, said control block identifying client NAT addresses for the computer system;

creating a main pool header;

allocating at least one subpool header having a subpool memory block containing one or more fixed-length connection blocks that are allocated within said subpool memory block, said connection blocks containing particular ones of said client NAT addresses, said subpool header being referenced by said main pool header;

wherein each connection block is either allocated or free, said particular ones of said client NAT addresses remain allocated within said subpool memory until all of said connection blocks are free.

14. (Previously Presented) A memory allocation system for a computer, said system comprising:

a memory pool;

means for accepting user input parameters; and

means for creating a client network address translation subpool within said memory pool, said means for creating said client NAT subpool including means for allocating a client NAT address range, means for allocating particular addresses within said client NAT address range, means for freeing said addresses in said client NAT address range, and means for deallocating said client NAT address range;

wherein particular addresses within said client NAT address range remain allocated within said subpool until all of said particular addresses within said client NAT address range have been freed.